

ABSTRACT OF THE DISCLOSURE

In a development environment for message flows, a user defined flow may be processed into a more efficient optimized flow. However, debugging execution of the optimized flow may be confusing to the user where a correspondence between connections in the optimized flow and connections in the user defined flow are not direct. To mitigate this confusion, a connections mapping table is generated along with the optimized flow. The deploy document received by the runtime may include enough information to recreate the connections mapping table such that during debugging of the optimized flow, the user may follow the user defined flow. The use of a stack at the runtime allows a debugger to maintain awareness of previous pauses in execution caused by the placement of breakpoints on connections in the user defined flow while directing the runtime through execution of the optimized flow.